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EXAMINER

VANAMAN, FRANK BENNETT

ART UNIT

PAPER NUMBER

3618

DATE MAILED: 12/10/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/982,215

Applicant(s)

Kanzler et al.

Examiner

Vanaman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Sep 16, 2002
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-7, 9, 10, 18, 19, 22-26, 28, and 29 is/are pending in the application.
- 4a) Of the above, claim(s) 29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-7, 9, 10, 18, 19, 22-26, and 28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Feb 26, 2002 is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☒ Certified copies of the priority documents have been received in Application No. 09/171,690.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

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### **Election/Restriction**

1. Applicant's election without traverse of Species I in Paper No. 9 is acknowledged. Applicant's amendment canceling claim 17 has been entered in the application. Claims 1-3, 5-7, 9, 10, 18, 19, 22-26, 28 and 29 remain pending in the application.

Claim 29 refers to the use of a single motor and a steering gear, which feature is not set forth in the elected species. Accordingly this claim is withdrawn from consideration.

An office action on claims 1-3, 5-7, 9, 10, 18, 19, 22-26 and 28 follows.

### **Drawings**

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: figure 3 includes reference numerals 54 and 60, and a further illegible numeral pointing to a box just above the box referred to by numeral 60. The objection to the drawings will not be held in abeyance. No new matter may be added.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the all vehicle components being "composed in the manner of modules", the traveling direction switch and the parking brake must be shown or the feature(s) canceled from the claim(s). must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

4. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### **Specification**

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

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pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of 37 CFR 1.71(a)-(c):

(a) The specification must include a written description of the invention or discovery and of the manner and process of making and using the same, and is required to be in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which the invention or discovery appertains, or with which it is most nearly connected, to make and use the same.

(b) The specification must set forth the precise invention for which a patent is solicited, in such manner as to distinguish it from other inventions and from what is old. It must describe completely a specific embodiment of the process, machine, manufacture, composition of matter or improvement invented, and must explain the mode of operation or principle whenever applicable. The best mode contemplated by the inventor of carrying out his invention must be set forth.

(c) In the case of an improvement, the specification must particularly point out the part or parts of the process, machine, manufacture, or composition of matter to which the improvement relates, and the description should be confined to the specific improvement and to such parts as necessarily cooperate with it or as may be necessary to a complete understanding or description of it.

The specification is objected to under 37 CFR 1.71 because it fails to provide a complete written description of the invention. On page 9, the specification refers to the adjusting of a gear ratio of a snow plow shaft by a potentiometer, however the specification fails to provide any further details as to the structure which would allow such an adjustment to be made. On pages 8-10, the specification refers to an optimization of consumption, however, the specification fails to set forth how this optimization is achieved. On page 15, the specification refers to tiltable cab portions and platform portions, but beyond illustrating, schematically only, a single actuator, the specification fails to describe how such tilting cab and platform portions may be constructed and used.

#### **Claim Rejections - 35 USC § 112**

6. Claims 19 and 25 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 19 and 25 refer to consumption-optimum speed for the engine,

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however the specification fails to set forth how such an optimization may be achieved, as noted in the specification objections above.

7. Claims 1-3, 5-7, 9, 10, 18, 19, 22-26 and 28 are rejected as failing to define the invention in the manner required by 35 U.S.C. 112, second paragraph.

The claim(s) are narrative in form and replete with indefinite and functional or operational language. The structure which goes to make up the device must be clearly and positively specified. The structure must be organized and correlated in such a manner as to present a complete operative device.

Some examples of indefinite or confusing language are cited below; **this is an exemplary listing only**: in claim 1, line 4, it is unclear whether the terms following “such as” form part of the claimed invention; in claim 1, line 6, it is not clear whether “an electric motor” is a reference to the electric motor previously recited on line 6 or another motor; in claim 1, line 7, it is not clear how a drive “designed” as one form or another recites a structural limitation; in claim 1, line 8, “said electric drive” lacks a clear antecedent basis; in claim 1, line 8, “said additional device” is not consistent with claim 1, line 3; in claim 3, “the planetary gear” lacks a clear antecedent basis; in claim 5, line 2, it is unclear whether or not applicant is attempting to incorporate method limitations (“designed”) into an apparatus claim; in claim 6, line 2 (also note claim 9, claim 19, etc.), the word “means” is preceded by the word(s) “high performance” in an attempt to use a “means” clause to recite a claim element as a means for performing a specified function. However, since no clear function is specified by the word(s) preceding “means,” it is impossible to determine the equivalents of the element, as required by 35 U.S.C. 112, sixth paragraph. See *Ex parte Klumb*, 159 USPQ 694 (Bd. App. 1967); in claim 10, line 2, the phrase “are composed in the manner of modules” is entirely confusing; in claims 24 and 25, “said electronic means” lacks a clear antecedent basis, and further the use of “electronic” to precede “means” fails to set forth a particular function, and thus the protection desired is not at all determinable; in claims 26 and 27 “said parking brake” lacks a clear antecedent basis.

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**Each and every claim should be carefully reviewed and revised for clarity and definiteness under 35 USC §112, second paragraph; all terms should be provided with a clear antecedent basis in the recitations.**

**Claim Rejections - 35 USC § 103**

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 2, 5, 6, 9, 10, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Logan Manufacturing Company (WO 94/09548; "Logan") in view of Buchdrucker (US 5,018,592). The Logan reference teaches a vehicle (10) having an internal combustion engine module (13d), drivingly connected through a planetary gear set module (page 13, line 1) to a drive sprocket module (14) of a track (11) and having accessory drives (16) of additional vehicle modules (page 12, lines 14-15), including an electrically powered implement module (12) driven by rotary electric motors (35t), the internal combustion engine connected to a generator module (13), and a pair of electric motor modules (35) for directly driving the tracks, including a gear (page 12, line 7) associated with each drive sprocket, and wherein regenerative braking may be had by driving the motors as generators (page 5, lines 14-23), the regenerated energy being stored in a battery (page 5, line 22), the operation of all of the motors and accessories being controlled by an electronic performance controller (98) located centrally on the vehicle, the vehicle further provided with a parking brake which is automatically actuated by a logic step in response to the deactivation of the drives (page 5, lines 11-14).

Logan fails to teach the implement as being a rotary snow plow synchronized to the electric driving motors. Buchdrucker teaches a driving vehicle having a motor (15) a rotary snow plow (18) and driven wheels (31, 32) wherein the operation of the plow and wheels may be

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synchronized, through the operation of clutches (16, 17, 20 and 21). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide a snow plow as an implement to the vehicle of Logan as suggested by Buchdrucker for the purpose of clearing accumulated snow from a desired area. The reference of Logan as modified by Buchdrucker fails to specifically teach the snow plow as being operated from an electric motor, however in view of the teachings of Logan as directed to rotary implements (12) being electrically powered, it would have been obvious to one of ordinary skill in the art at the time of the invention to power the plow electrically. Further, in view of the synchronization taught by Buchdrucker, it would have been obvious to one of ordinary skill in the art at the time of the invention to operate the implement-driving electric motor in synchronization with the driving motors for the purpose of conserving energy when the vehicle is stopped, the use of the snow plow being redundant in a stopped condition.

10. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Logan in view of Buchdrucker and Ossi (US 5,101,919). The reference of Logan as modified by Buchdrucker is discussed above and fails to teach the provision of a single electric motor driving both sprockets and including a planetary gear. Ossi teaches a dual track (12, 14, 16, 18) driving system which derives its power from a single source (engine 20) and includes a differential steering mechanism (40, 42, 48, etc.) including a plurality of planetary gear sets for allowing turning of the vehicle. It would have been obvious to one of ordinary skill in the art at the time of the invention to employ a differential steering system including a planetary gear set as taught by Ossi to the vehicle of Logan as modified by Buchdrucker for the purpose of requiring only a single drive motor, rather than a pair.

11. Claims 7, 18, 19 and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Logan in view of Buchdrucker and Kawakatsu (US 4,335,429). The reference of Logan as modified by Buchdrucker is discussed above and fails to teach an electronic engine control, a traveling speed set point device such as an accelerator directed to both the engine and motors, a

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device for determining consumption-optimum engine speeds, and means for sensing the accelerator and brake conditions. Kawakatsu teaches a hybrid drive system involving both an engine (1) and a plurality of motor-generators (5, 7), the vehicle provided with an overall controller (35, figure 4), which receives information from a speed set point transmitting element such as an accelerator (67, 67a), a brake (69, 69b), outputs driving speed information to both an electric motor (AP[H]) and the engine ((AP[E]) through a converting engine controller (17), and wherein the controller includes an evaluation section for determining an optimum consumption (figures 1, 2, 8, 9, 10a, 10b) and driving configuration based on traveling conditions.

It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the traveling speed set point device and brake device as taught by Kawakatsu to the vehicle of Logan as modified by Buchdrucker for the purpose of allowing the user to control the motion of the vehicle. Further, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a separate engine control device as taught by Kawakatsu to control the engine of the vehicle of Logan as modified by Buchdrucker so as to allow a single common controller to be operable with numerous different capacity engines, requiring only a change in the transfer function of the engine controller. Further it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the consumption optimization taught by Kawakatsu for the vehicle of Logan as modified by Buchdrucker for the purpose of determining an appropriate and efficient operating characteristic, based on sensed driving conditions.

12. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Logan in view of Buchdrucker, Kawakatsu and Tsutsui et al (US 5,649,880). The reference of Logan as modified by Buchdrucker and Kawakatsu is discussed above and fails to teach a shift position detection device. Tsutsui teaches a transmission control scheme including a hill-hold function and a fail safe, wherein a shift position is determined (Step 2-2-4-4) as a part of the failsafe routine. It would have been obvious to one of ordinary skill in the art at the time of the invention to further



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determine a transmission shift position as suggested by Tsutsui in the vehicle of Logan as modified by Buchdrucker and Kawakatsu for the purpose of applying a stopping hill-hold function which determines a proposed direction of travel as set by the driver.

### Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Huddle (US 2,735,253), Mambelli (US 4,545,450), Doyen et al. (US 4,632,200), Taga et al. (US 4,669,562), Inoue (US 4,738,326), Hartmann (US 5,022,478), James (US 5,363,937), Dow et al. (US 5,373,909), Cooper (US 5,590,041), Satzler (US 5,857,532), and Jennen (US 5,531,282) teach vehicle structures of pertinence.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to F. Vanaman whose telephone number is (703) 308-0424. Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 308-1113.

Any response to this action should be mailed to:

Assistant Commissioner for Patents  
Washington, DC 20231

or faxed to :

(703) 305-3597 or 305-7687 (for formal communications intended for entry;  
informal or draft communications may be faxed to the same number but should be  
clearly labeled "UNOFFICIAL" or "DRAFT")

The Office has also established electronic fax servers for Technology Center 3600 as follows:

703-872-9326 (Official communications)  
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703-872-9325 (Customer Service)

**F. VANAMAN**  
**Primary Examiner**  
**Art Unit 3618**

F. Vanaman  
December 6, 2002



12/6/02